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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/632,164

08/03/2000

Naozumi Sugimura

58799-013

1017

20277 7590 04/09/2004

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EXAMINER

CHEVALIER, ROBERT

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 04/09/2004

Handwritten number 1

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/632,164

Applicant(s)

SUGIMURA ET AL.

Examiner

Bob Chevalier

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/3/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 15, 16 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3.5</u> | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 7-12, 14, 17-18, and 20, are rejected under 35 U.S.C. 102(b) as being anticipated by Lane et al.

Lane et al discloses a video recording/reproducing apparatus that shows all the limitations recited in claim 1, including the feature of extracting picture data out of inputted digital compressed picture signal (See Lane et al's Figure 10a, component 342, wherein picture data are extracted from compressed picture signal received from component 304), the feature of generating trick-play data from said picture data through program processing (See Lane et al's Figure 10a, component 308, wherein the trick-play data are generated), the feature of disposing the trick-play data on tracks in predetermined position falling in line with the trace of the rotary magnetic head scanning in trick-play mode (See Lane et al's column 52, lines 25-38), and the feature of storing the extracted picture data and disposed by the disposition circuit as specified in the present claim 1. (See the recording medium shown in Lane et al's Figure 13a).

With regard to claim 2, the feature of extracting intra-frame coded pictures as specified thereof is present in Lane et al. Because, Lane et al's discloses that the trick-play data would include intra-frame data. (See Lane et al's Figure 10a, component 308, and column 31, lines 53-55).

With regard to claim 3, the feature of the picture data extraction circuit detecting a predetermined picture start code and end code contained in the digital compressed picture signal as specified thereof would be inherently present in Lane et al. Because, Lane et al discloses that the filter 308 identifies and sorts the data packets to generate the trick play data using information located in the packet headers, including the data type, and any other information needed to sort said data. Therefore, one of ordinary skill in the art would readily recognize that in order to sort the data packets as indicated in Lane et al, the header information that is used to identify and do the sorting operation would necessarily include a start and end code in order to identify the beginning and the ending of the picture data located in the packet. (See Lane et al's column 50, lines 1-8).

With regard to claims 7-8, the feature of disposing trick-play data for being reproduced at a plurality of trick-play speeds in place on the magnetic tape as specified thereof is present in Lane et al. (See Lane et al's column 52, lines 25-38, and Lane et al's Figure 13b).

With regard to claim 9, the feature of the storage means including at least three trick-play data storage areas for storing the trick play data as specified thereof is present in Lane et al. (See Lane et al's Figure 13b, where it is shown the normal playback track, the 9X forward trick play track, and the 7X reverse fast scan track).

With regard to claims 10, 14, 17, and 20, the feature of disposing data for fast forward trick-play on tracks in predetermined fast forward data recording location falling in line with the trace of said rotary head scanning in fast forward mode and data for rewind trick-play on tracks in predetermined rewind data recording locations falling in

line with the trace of the rotary head scanning in rewind mode as specified thereof is present in Lane et al. (See Lane et al's Figure 13b, where it is shown the fast forward trick-playback track, and the reverse fast scan track).

With regard to claims 11-12, and 18, the feature of generating the trick-play data and adding the error correction code to the trick-play data as specified thereof is present in Lane et al. (See Lane et al's Figure 10a, components 308, and 310).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al in view of the admitted prior art described at page 3, lines 5-14, of the present Application.

Lane et al discloses a video recording/reproducing apparatus that shows substantially the same limitations recited in claim 4, including the feature of generating trick-play-data from inputted digital compressed picture signal as specified in the present claim 4. (See Lane et al's Figure 10a, component 308).

Lane et al fails to specifically disclose the feature of the picture data being analyzed into spatial frequency components and cutting high band spatial frequency components when trick play data is generated as specified in the present claim 4.

The admitted prior art described at page 3, lines 5-14, of the present Application does disclose the feature of generating intra-frame data (trick-play-data) and the capability of removing the high band spatial frequency components therefrom when performing recording operation.

It would have been obvious to one skill in the art to modify the Lane et al's recording apparatus wherein the trick-play-data generating means provided thereof (See Lane et al's Figure 10a, component 308) would incorporate the capability of removing the high band spatial frequency components from the generated intraframe data (trick-play-data) when performing recording operation as suggested in the prior art. The motivation being to improve the quality of the encoded data as suggested in the prior art.

6. Claim 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al in view of Haines.

Lane et al discloses a video recording/reproducing apparatus that shows substantially the same limitations recited in claim 5, including the feature of the storage

means having a plurality of storage areas and the feature of the extracted picture data being stored in one of the storage areas as specified in the present claim 5. (See Lane et al's Figure 13b).

Lane et al fails to specifically disclose the feature of writing the picture data in the storage area of the storage means while at the same time reading stored picture from the storage means as specified in the present claim 5.

Discloses a video recording/reproducing apparatus which shows the capability of recording picture data in a storage area of a storage means while at the same time reading stored picture data from the storage means as specified in the present claim 5. (See Haines' claim 6).

It would have been obvious to one skill in the art to modify the Lane et al's apparatus wherein the recording/reproducing means provided thereof would incorporate the capability of recording picture data in a storage area of a storage means while at the same time reading stored picture data from the storage means in the same conventional manner as is shown by Haines. The motivation is to be able to record a program and, at the same time, to be able to reproduce and check the accuracy of the recorded program at any desired time as suggested by Haines.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al and Haines as applied to claim 5 above, and further in view of Kwon.

The proposed combination of Lane et al and Haines indicated above discloses a video recording/reproducing apparatus that shows substantially the same limitations recited in claim 6, including the feature simultaneously recording and reproducing on

and from the storage medium as specified in the present claim 6. (See the above rejection of claim 5).

The proposed combination of Lane et al and Haines indicated above fails to specifically disclose the feature of retrieving data stored in the storage medium in order to send said retrieved data back to the disposition circuit for disposing the retrieved data on tracks as specified in the present claim 6.

Kwon discloses a video recording/reproducing apparatus which includes the capability of retrieving data stored in the storage medium in order to send said retrieved data back to the disposition circuit for disposing the retrieved data on tracks as specified in the present claim 6. (See Kwon's Figure, component 36, 14, 34, where it is shown that data are being retrieved from the recording medium 34 and said retrieved data are sent back through components 36, 14, 20, and 32, to be disposed on tracks of the same recording medium).

It would have been obvious to one skill in the art to modify the proposed combination of Lane et al and Haines indicated above wherein the recording/reproducing means provided thereof would incorporate the capability of retrieving data stored in the storage medium in order to send said retrieved data back to the disposition circuit for disposing the retrieved data on tracks of the recording medium in the same conventional manner as shown by Kwon. The motivation is to have the option of recording the reproduced signal on the same recording medium at any desired time as suggested by Kwon, thereby increase the efficiency of the apparatus.

8. Claims 13 and 19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lane et al in view of Naimpally.

Lane et al discloses a video recording/reproducing apparatus that shows substantially the same limitations recited in claims 13, and 19, including the feature of generating trick-play-data having error correction code added thereto as specified in the present claims 13, and 19. (See Lane et al's Figure 10a, components 308, and 310).

Lane et al fails to specifically disclose the feature of filling up the data block with data that is not decoded into picture data when the size of the block does not meet the quantity of the data as specified in the present claims 13, and 19.

Naimpally does disclose a recording apparatus which includes the capability of generating encoded data and the capability of filling up the data block with data that is not decoded into picture data when the size of the block does not meet the quantity of the data as specified in the present claims 13, and 19. (See Naimpally's column 5, lines 21-23).

It would have been obvious to one skill in the art to modify the Lane et al's apparatus wherein the trick play data generating means provided thereof (See Lane et al's Figure 10a, components 308, and 310) would incorporate the capability of filling up the data block with data that is not decoded into picture data when the size of the block does not meet the quantity of the data in the same conventional manner as is shown by Naimpally. The motivation being to improve the quality of the encoded data as suggested by Naimpally.

9. Claims 15-16, and 21, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bob Chevalier whose telephone number is 703-305-4780. The examiner can normally be reached on MM-F (9:00-6:30), second Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

B. Chevalier
April 8, 2004.


ROBERT CHEVALIER
PRIMARY EXAMINER